MODIS TECHNICAL TEAM MEETING

October 23, 1995

The MODIS Technical Team Meeting was chaired by Vince Salomonson. Present were David Herring, Dorothy Hall, Bruce Guenther, Steve Ungar, Barbara Conboy, Bob Murphy, Harry Montgomery, Bill Barnes, Locke Stuart, Catherine Harnden, Ed Masuoka, Yoram Kaufman, and Al Fleig.

1.0 SCHEDULE OF EVENTS

Oct. 16	**Quarterly Reports Due (Period--July-September)**
Oct. 30	MODIS Quarterly Software Management Review
Oct. 30 - Nov. 3	EOSDIS Incremental Design Review for Release B System
Nov. 2 - 3	SWAMP Meeting
Nov. 8 - 9	Workshop on Subsetting Data
Nov. 15 - 17	MODIS Science Team Meeting at GSFC, Building 8 Auditorium

2.0 MINUTES OF THE MEETING

Salomonson began the meeting by introducing Dr. Robert Murphy, NASA Headquarters visiting scientist. Murphy will be attending MODIS functions on assignment from HQ to learn more about what is happening programmatically and technically with the MODIS effort. He will assist wherever he can in the various activities and help to enhance coordination with HQ and other parts of the Project.

2.1 MODIS Project Reports

Barnes reported that EOS Project personnel met recently to discuss options for spacecraft maneuvers. He said a memo is forthcoming in which Project's official position on spacecraft maneuvers will be discussed.

2.2 MCST Reports

Guenther reported that MCST is preparing for the review process for the MODIS Version 1 Software release in February 1996. MCST's role will be that coordinator and auditor. Guenther stated that the audits will be broken into three major components: 1) Emissive Infrared, to be held Nov. 8 - 9 at the University of Wisconsin-Madison; 2) Reflective Solar Band, to be held Dec. 4 - 5 at the University of Miami; and 3) the Onboard Calibration audit, to be held at the University of Arizona on Dec. 11 - 12.

Salomonson observed that travel funding could be a concern for those dates.

2.3 SDST Reports

There was some discussion regarding the recompetition of the DAACs. There is some logic in processing products in modules such as land, ocean and atmosphere products. However, there is also strong rationale for keeping the products together as they are now. There remains the questions of how many product modules are possible and still keep costs, etc. within bonds. Masuoka noted that the Ocean Group wants sea surface temperature to be processed as part of the same subset as the ocean color products.

Salomonson has the opinion that it would be better to delay the DAAC recompetition until after the launch of EOS AM-1 and TRMM. If recompetition occurs now it is not clear that products can be delivered on time and within presently projected costs. In the latter case an existing thesis is that the recompetition will reduce costs. It certainly is not clear, in general that this is true, but for the TRMM and AM-1 mission it seems pretty certain the thesis is not true.

Later in the meeting, Kaufman commented that he feels it is important to organize all algorithms in-house to ensure that they can all run in the Team Leader Computing Facility (TLCF). Fleig responded that SDST presently intends to be able to run all algorithms in the TLCF for purposes of validation and testing.

2.3.1 Simulated Data

Ungar reported that Fleig and he are making good progress on simulated data. They are now considering simulating scenes with multiple levels of clouds. He noted that Science Team members, such as Paul Menzel, are more interested in having real AVHRR data to test their algorithms. However, it may also be useful to have an independent data set to help characterize how Menzel's algorithm defines clouds, as well as to facilitate scientific discourse on products such as the cloud mask. Ungar, in any case, would like feedback to be sure that there is a need for simulated data of this sort; otherwise, it may not be worth the effort of producing.

Barnes stated that MODIS Project is working with SBRC to model coherent noise in the Engineering and Protoflight Models. He asked if SDST can simulate noise. Fleig responded that it can be done.

Fleig reported that the Synthetic Data Plan is finished and was e-mailed out to team leaders for review. He stated that the CERES Team is doing a similar synthetic data effort, and that there is room for cooperation between the two teams. That cooperative effort could expand to include all EOS instrument teams.

2.3.2 Beta Delivery

Salomonson inquired as to the status of beta delivery of MODIS software. Masuoka responded that SDST will be able to deliver the beta code to EOS Project by January 1996, however, the code will not be fully integrated.

2.5 SCAR - B Report

Kaufman reported that he concluded the Smoke, Clouds, and Radiation - Brazil (SCAR-B) campaign a few weeks ago and that it was a success. He stated that the MODIS Airborne Simulator (MAS) made a substantial contribution to the campaign's success. The instrument had 50 channels and obtained remotely sensed image data over nearly 2 million square kilometers during the campaign. Additionally, a tremendous amount of validation data were obtained from aircraft and ground instruments.

2.5.1 First Atmosphere Group Workshop

Kaufman announced that he is working with Didier Tanre, Teruyuki Nakajima, and Howard Gordon to organize the first international Atmosphere Group Workshop, tentatively planned for the April 1996 timeframe. Attendance will be by invitation only. Kaufman stated that it is important to validate the MODIS Atmosphere Group's science algorithms by comparing them to other scientists' efforts. So, the workshop will combine presentations and discussion groups that will be lead by atmospheric scientists who are not funded by any satellite launch projects.

All papers presented at this workshop will be submitted in advance to the Journal of Geophysical Research, which plans to do a special issue on this group's efforts.

2.6 MAST Reports

Stuart announced that he has appointed Barbara Conboy to the position of MODIS Administrative Support Team (MAST) leader. Any funding concerns should be forwarded to Conboy. Stuart will remain the chairman of the MODIS Science Support Office (MSSO).

3.0 ACTION ITEMS

3.1 Action Items Carried Forward

1. *Dave Diner & Robert Wolfe*: MODIS and MISR need to settle on a protocol(s) to deal with Level 1 and Level 2 data sets to be passed between the two teams to produce joint products. Report at the next SWAMP Meeting.

3.2 Closed Action Items

2. *SDST*: prepare a strawman evaluation (by Oct. 17) as to how best to compartmentalize the processing of data products for the DAAC recompetition.
3. *Fleig and Ungar*: Interact with the group leaders to develop a MODIS data simulation plan for review at the next Science Team Meeting. [The plan has been sent to team leaders for review.]